Statistical Bulletin
METROPOLITAN LIFE INSURANCE COMPANY
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Widows Increasing in Number

NOTWITHSTANDING the long-term decrease in mortality, the number of widows in the United States has been mounting steadily. It is estimated by the Bureau of the Census that in March of this year there were 8,047,000 widows in our country, an increase of more than one million since 1950 and nearly 3 times the total in 1900. Currently, among women aged 14 and over about one in every eight is widowed; at the turn of the century the proportion was about one in nine.

The growing number of widows is accounted for largely by the more favorable mortality trend for females than for males. With the marked reductions in mortality for both sexes, particularly at the younger ages, widowhood has been postponed to a later age, but the greater improvement for females has increased their chances of eventually becoming widowed.

Table 1 indicates the extent to which widowhood has shifted to the older ages. Currently, more than half of the widows in the United States are 65 years of age or older, compared with one third at the turn of the century. On the other hand, at present only 8 percent of the widows are under age 45; in 1900 the proportion was 3 times as high. The table shows that widowhood is common at every age past midlife. One quarter of all women at ages 55-64 are widowed; the proportion is nearly twice as high at 65-74 years, and 3 times as high at ages 75 and over. While widowhood is most frequent in the later years, even at ages 45-54 one woman in every 10 is a widow.

The majority of women who become widowed still have many years of life before them. As Table 2 shows, three fourths of the white women at age 50 will live an additional 20 years. The same number of years remain for nine tenths of the women who are widowed at age 40 or earlier. Of the wives who are bereft of their spouse at age 65, half can expect to live for 15 years and about one third for 20 years.

Because of the improvement in longevity, women bereft of their spouse can expect a longer period of widowhood than women of cor-

TABLE 1—WIDOWS IN THE UNITED STATES, 1956 AND 1900

Age Period (Years)	1956		1900	
	Percent of All Widows	Percent of All Women	Percent of All Widows	Percent of All Women
14 and Over	100.0	12.6	100.0	10.9
14–34	1.7	0.5	10.2	2.0
35–44	6.2	4.1	13.8	8.6
45–54	12.4	9.9	19.5	17.6
55–64	24.5	25.1	23.1	32.3
65 and over	55.2	55.1	33.4	59.5
65–74	29.3	44.9	*	*
75 and over	25.9	74.0	*	*

*Not available.
Source of basic data: Various reports by the Bureau of the Census.

TABLE 2—CHANCES IN 100 THAT A WHITE WOMAN WILL SURVIVE FOR SPECIFIED NUMBER OF YEARS
United States, 1956 and 1900-02

Present Age	Years of Survival				
	5	10	15	20	25
	1956				
30	99	99	98	96	93
35	99	98	96	94	90
40	99	97	94	90	84
45	98	95	91	85	76
50	97	93	87	77	64
55	96	89	79	66	48
60	93	83	68	50	28
65	89	73	53	30	12
70	83	60	34	13	4
	1900-02				
30	96	92	88	83	76
35	96	91	86	80	72
40	95	90	83	75	64
45	94	87	78	68	54
50	93	83	72	58	42
55	90	78	62	45	27
60	86	69	50	30	14
65	80	58	35	16	5
70	72	44	20	7	1

responding age at the turn of the century. For example, according to mortality conditions around 1900, 92 percent of the white women at age 30 survived for 10 years; at present, about the same proportion still have 25 years of life ahead of them. Similarly, in the earlier period 94 percent of the women at age 45 survived for 5 years; now that proportion survives 11 years. Other comparisons can be made from the data in Table 2.

Paradoxically, while remarkable progress has been made in reducing mortality, the chances that a wife will outlive her husband have increased, and the duration of widowhood has lengthened for women at every period of life. Widowhood very often brings with it many problems, whatever the age of the woman. Young widows frequently must seek gainful employment even though they have young children in their care. Many of the women who lose their husband later in life still have dependent children and, in addition, are handicapped by lack of specific qualifications for employment. The benefits provided by Social Security provide only for minimum needs. Each breadwinner has the opportunity to make provision for the individual needs of his family through Life Insurance, investments, and other means.

Hazards in Plural Birth

THE chances of being born alive and of surviving the first year of life are distinctly less for children in plural births than for the single-born. Furthermore, the hazards are greater for triplets than for twins and greater for quadruplets than for triplets; the survival of a set of quadruplets is a rare event. Plural births account for only 2 percent of all births in the United States but are responsible for about 6 percent of the fetal deaths (stillbirths of 20 or more weeks of gestation) and for nearly 10 percent of all infant deaths. Data from a variety of sources show considerable variation in the mortality of children in plural births according to age and parity of the mother, duration of pregnancy, and birth weight of the infant.

The fetal death rate among twins in the United States in 1956 was 43.6 per 1,000 born alive or dying during the fetal period, compared with a rate of 15.6 per 1,000 for the single-born; for other plural deliveries the corresponding rate was 80.6. Data available for twins show a particularly high fetal mortality among those born to very young mothers and to mothers at ages 45 and over, but even those born to mothers in the age range 20-44 years experience a higher fetal death rate than the single-born. Fetal mortality is markedly

INFANT MORTALITY AMONG TWINS AND SINGLE-BORN

By Color and Age of Mother

New York City, 1955-57

Age of Mother	Annual Rates per 1,000 Live Births			
	Single Births	Twin Births		
		Total	Both Born Alive	One Born Alive
	Total Persons			
All Ages*	22.5	98.8	91.5	358.1
15–19	32.6	157.7	148.5	466.7
20–24	21.8	122.9	114.4	418.9
25–29	20.0	84.7	77.1	367.8
30–34	21.4	88.2	81.9	333.3
35–39	24.6	84.3	80.2	204.5
40 and over	34.5	89.1	75.0	571.4
	White			
All Ages*	19.5	87.4	81.0	321.6
15–19	28.0	138.5	126.6	555.6
20–24	18.5	102.3	93.3	406.8
25–29	17.4	75.1	68.9	318.2
30–34	18.8	86.3	81.0	290.9
35–39	22.7	76.5	74.1	151.5
40 and over	33.0	82.2	74.8	400.0
	Nonwhite			
All Ages*	36.3	141.3	130.8	478.3
15–19	41.1	189.7	185.2	333.3
20–24	35.5	192.4	185.5	466.7
25–29	34.9	121.4	108.8	523.8
30–34	35.8	96.5	85.3	500.0
35–39	35.2	119.3	107.8	363.6
40 and over	44.4	142.9	76.9	1,000.0

*Includes ages under 15 and ages not stated.

Note: Rates in italics based on less than 10 deaths.

Source: Special tabulations by the Statistical Division of the Bureau of Records and Statistics, Department of Health, City of New York.

higher among nonwhite twins than among the white, irrespective of age of mother.

Whether or not a mother has had children previously is also a factor in the mortality experience of infants born in plural sets. A recent study in Iowa* showed that both the fetal mortality and the neonatal death rate (mortality in the first four weeks of life) generally decreased with increase in parity of the mother. Thus, the neonatal death rate was less than half as high among twins born to mothers who had already had three or more children as among those whose mother had had no previous pregnancy.

Infant mortality (the death rate in the first year of life), as well as fetal mortality, is higher for twins than for single births; this is evident from the experience of New York City for 1955-57, summarized in the table on page 4. The infant mortality rate among twins was 99 per 1,000 live births and among triplets 267 per 1,000, compared with 22.5 for the single-born. In cases where only one of the twins is born alive, the infant mortality rate was nearly 4 times that for twins both of whom were born alive. Where only one of a pair is born alive, more than one third of the survivors die within a year, with a high concentration of deaths in the first week. Infant mortality among twins was highest for those born to mothers under age 20, and next highest for those with mothers 20-24 years of age. The death rates in the first year of life for twins born to mothers aged 25 and over were appreciably lower than among those to younger mothers but their mortality was consistently higher than that for the single-born. As in the case of fetal mortality, infant mortality is distinctly higher for nonwhite than white babies.

The difference in mortality between twin and single births is especially large in the first weeks after birth. A study in 1950 for the country as a whole showed that mortality during the first four weeks was more than 5 times as high among twins as among single-born infants.† The disparity was large at each age division from the first hour through the fourth week.

The excess mortality among babies in plural births is due largely to a high incidence of prematurity among them; premature (or immature) children are commonly defined as those who weigh 2,500 grams (5½ pounds) or less at birth. In the 1950 study noted above, it was found that slightly more than half of the babies in plural sets were below this weight, compared with 6.4 percent among the single-born. The median birth weight was

*Donnelly, M. M., "The Influence of Multiple Births on Perinatal Loss," *American Journal of Obstetrics and Gynecology*, Vol. 72, November 1956, p. 998.

†Shapiro, S., and Unger, J., "Weight at Birth and Its Effect on Survival of the Newborn in the United States, Early 1950," *Vital Statistics—Special Reports*, Vol. 39, No. 1, July 23, 1954; "Relationship of Weight at Birth to Cause of Death and Age at Death in the Neonatal Period, United States, Early 1950," *ibid*, No. 6, February 23, 1956.

2,460 grams for children born in plural sets and 3,330 for the single-born. Birth weight, however, is not an accurate measure of the comparative maturity of plural and single-born babies, because children born in sets who have the same birth weight as those born singly are usually more advanced in their development. The fact remains that for comparable periods of pregnancy, neonatal mortality is appreciably higher among plural than among single births.

Deaths ascribed to prematurity account for about half of all neonatal deaths among children in plural births, a rate approximately 9 times that for single births. Other causes of death which show a higher mortality for plural births in the neonatal period are birth injuries, postnatal asphyxia, pneumonia, and disorders due to disease in the mother.

Irrespective of birth weight, both fetal and neonatal death rates are higher for the second-born of a twin set than for the one born first. Much of the difference is attributable to the disparity in mortality from birth injuries and postnatal asphyxia. Identical twins experience somewhat higher neonatal death rates than fraternal twins.

To some extent, the higher mortality in plural births reflects the added physiological burden placed upon the mother. Much can be done, however, to reduce the hazards of multiple pregnancy. Of prime importance are early detection of the presence of more than one fetus, and early and continuous medical supervision during pregnancy—measures of special consequence for very young and for older women. Mothers need to be made aware of the critical importance of prenatal care in multiple pregnancy, particularly since added precautions are necessary to prevent nutritional deficiencies. Improvement in obstetric practices would be helpful in lessening the hazards to the second and later-born children of the same plural set. The development of methods to prevent the premature onset of labor would be especially fruitful in saving the lives of children in plural births.

Proportion of Women in Population Increasing

DURING the past half century the proportion of females in the population of the United States has been increasing steadily, and the outlook is that this trend will continue for at least another decade. In 1910, following a decade of heavy immigration—predominantly male—there were 943 females to every 1,000 males in the population. Since then the female population has been growing more rapidly than the male, and by 1950 females were in majority, numbering 1,008

to every 1,000 males, including the Armed Forces overseas. This ratio is expected to increase to 1,029 per 1,000 by 1970 and to remain at that level for a decade, according to the projections by the Bureau of the Census shown in Table 1.

The rise in the proportion of females is accounted for, in large measure, by their more favorable mortality trend. In 1910 there were 833 deaths among females for every 1,000 deaths among males in the Registration States; by 1957 the ratio had decreased to 763 per 1,000 males. The figures on longevity tell a similar story. According to mortality conditions prevailing in the Registration States of 1910, the expectation of life was 48.4 years for males and 51.8 years for females, a difference of 3.4 years. For 1956, the latest year for which data are available, the corresponding figures were, 66.7 and 73.0 years, a disparity of 6.3 years. These figures relate solely to the experience within the United States and hence do not take into account deaths occurring in the Armed Forces overseas.

In part, the growing numerical dominance of females reflects the change in sex composition of the immigrants entering the United States. From the turn of the century until World War I, nearly 70 percent of the immigrants were males. The proportion then decreased somewhat, but male immigrants were still in the majority during the 1920's. Beginning with 1930, however, every year without exception has seen more females than males coming into the country. The preponderance of females was particularly marked immediately after World War II, with the

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TABLE 1—RATIO OF FEMALES TO MALES

Population of the United States; July 1, 1910-1980

Year	Number, in Thousands*		Females per 1,000 Males
	Males	Females	
1910	47,554	44,853	943
1920	54,295	52,171	961
1930	62,297	60,780	976
1940	66,352	65,770	991
1950	75,530	76,153	1,008
1957	84,858	86,371	1,018
1960	88,932	90,841	1,021
1970	102,592	105,607	1,029
1980	120,979	124,430	1,029

*Includes Armed Forces overseas beginning with 1940.

Source: Bureau of the Census, *Current Population Reports, Population Estimates*, Series P-25, Nos. 98, 114, 146, 170, and No. 187 (using projection series III).

TABLE 2—RATIO OF FEMALES TO MALES BY AGE

Population of the United States; July 1, 1957 and 1980

Age Group (Years)	Number, in Thousands*				Females per 1,000 Males	
	1957		1980			
	Males	Females	Males	Females	1957	1980
All Ages	84,858	86,371	120,979	124,430	1,018	1,029
Under 15	26,585	25,540	37,546	35,979	961	958
15–19	6,005	5,826	10,419	10,029	970	963
20–24	5,399	5,355	10,467	10,186	992	973
25–34	11,732	12,035	18,623	18,372	1,026	987
35–44	11,430	11,910	12,659	12,741	1,042	1,006
45–54	9,692	10,019	10,973	11,473	1,034	1,046
55–64	7,247	7,706	10,025	11,391	1,063	1,136
65 and over	6,769	7,980	10,267	14,259	1,179	1,389

*Includes Armed Forces overseas.

Source: Bureau of the Census, *Current Population Reports, Population Estimates*, Series P-25, No. 170 and No. 187 (using projection series III).

influx of overseas war brides of American servicemen. The majority of emigrants, on the other hand, have been males. During the postwar period — from mid-1945 through mid-1957 — about 25,600 more males than females left the United States. In the same period, approximately 287,800 more females than males came into the country, a net gain of nearly 313,400 females.

A somewhat greater number of boys than girls are born each year, but because males experience the higher mortality at each age, their numerical superiority is gradually reduced, and eventually they are outnumbered by the females. This pattern of natality and mortality accounts in large part for the age variations in the sex ratio of the current population. Under age 20, females are in the minority; at 20-24 years the two sexes are about evenly balanced, and thereafter women outnumber the men. As Table 2 shows, at ages 25-34 there were 1,026 women to every 1,000 men in the population in 1957; at ages 65 and over the ratio was 1,179 to 1,000. In the years ahead females will increase their numerical dominance at the older ages, according to Bureau of the Census projections. The number of females per 1,000 males at ages 55-64 is expected to rise from 1,063 in 1957 to 1,136 in 1980, and at ages 65 and over from 1,179 to 1,389.

Accident Death Toll in Canada

ACCIDENTS take a heavy toll of life in Canada. In 1957, the fatally injured totaled about 9,600, equivalent to a death rate of 58 per 100,000 population, compared with a rate of 56 for the United States. Year after year, both countries are among those with the highest accident death rates in the world.

Accounting for nearly 8 times as many deaths as tuberculosis and for nearly twice as many as pneumonia, accidents rank fourth as a cause of death in Canada. They are among the first five causes at every age group and outrank every other cause of death among males in the broad range of ages from 1 through 44 years. The accident death rate for males at all ages combined is more than 2½ times that for females, the rates being 81.4 and 32.0 per 100,000, respectively, in 1955-56.

Not only have motor vehicle accidents long accounted for a large proportion of the total accident toll in Canada, but they are

MORTALITY FROM SELECTED TYPES OF ACCIDENTS, CANADA,* 1950-1956

Type of Accident	Death Rate per 100,000 Population						
	1956	1955	1954	1953	1952	1951	1950
Total	57.5	56.5	55.2	58.3	59.2	57.5	55.2
Transport	26.2	23.5	23.5	25.7	25.4	24.4	21.2
Motor vehicle	22.2	19.5	18.9	21.1	20.4	19.0	16.7
Other road vehicle	†	0.3	0.5	0.6	0.6	0.6	0.9
Water transportation	†	1.9	2.2	2.1	2.1	2.6	1.8
Railway	1.2	1.0	1.0	1.0	1.5	1.5	1.4
Aircraft	†	0.8	0.9	0.9	0.8	0.7	0.4
Nontransport	31.3	33.0	31.7	32.6	33.8	33.1	34.0
Falls	9.8	9.7	9.9	9.9	10.0	10.4	11.3
Drowning	4.8	6.4	5.3	6.1	6.3	5.2	5.4
Fire and explosion	3.9	3.7	3.4	3.2	4.0	4.0	3.5
Burns and scalds	0.4	0.4	0.4	0.5	0.4	0.4	0.6
Machinery	1.6	1.5	1.6	1.7	1.8	1.7	1.6
Poisonous gas	1.0	1.0	1.2	1.3	1.3	1.1	1.2
Poisoning by solids and liquids	1.0	1.2	1.1	1.0	0.9	1.0	0.9
Firearm	1.0	1.1	1.1	1.1	1.2	1.1	1.1
All other	7.8	8.0	7.7	7.8	7.9	8.2	8.4

*Excluding the Yukon and Northwest Territories.
†Not available.
Source of basic data: Reports of the Dominion Bureau of Vital Statistics.

the only type of accident to show an upward trend in mortality in recent years. As is evident from the table on page 9, motor vehicle accidents were responsible for nearly 40 percent of the total in 1956; the death rate that year reached an all-time high of 22.2 per 100,000, about a third higher than that only six years earlier; the preliminary rate for 1957 is 22.3. This upward trend reflects the rise in fatal injuries among drivers and passengers, who consistently account for a large majority of the motor vehicle accident victims. The death toll among pedestrians has remained relatively unchanged.

Falls rank second to motor vehicle mishaps as a cause of fatal injury. Although the death rate from this cause has decreased somewhat, it still represents one sixth of the total accident mortality in Canada. More than half of all the fatal falls occur in and about the home, reflecting the high frequency of such injuries among older people; nearly 75 percent of those sustaining fatal injuries in falls are 65 years of age or older. That physical impairments are a considerable factor in accidental falls among older people is evidenced by the fact that many of the falls occur while these people are merely walking about the house. Faulty housekeeping and inadequate lighting are contributing factors in many cases.

Drownings — other than those associated with water transportation — took nearly 800 lives in Canada during 1956, the death rate being 4.8 per 100,000 population. Nearly 90 percent of the victims were males. The loss of life was particularly heavy among school-age children, but there was also an appreciable number of drownings among children of preschool age and among adolescents. Drownings resulting from water transport accidents account for about 300 deaths annually, most of them involving small boats — rowboats, outboards, canoes, and dinghies.

Fire and explosion, with a death rate of 3.9 per 100,000 in 1956, ranks fourth among the causes of accidental death in Canada. As may be seen from the table, machinery accidents are next in order, followed by railway accidents. A point of special interest is the appreciable rise in deaths due to poisoning by the barbiturates, which now account for about a third of all deaths from accidental poisoning by solids and liquids.

The total mortality from accidents varies from one Province to another. In 1955-56, British Columbia, on the west coast, recorded the highest accident death rate, namely, 72.2 per 100,000 population. New Brunswick, at the other end of the country, had the second highest rate—63.2 per 100,000. The two neighboring Provinces of Saskatchewan and Manitoba, on the other hand, recorded the lowest accident death rates—only slightly above 50 per 100,000.

MORTALITY FROM SELECTED CAUSES

Industrial Policyholders, Metropolitan Life Insurance Company

October 1958

Cause of Death	Annual Rate per 100,000 Policyholders*				
	October		Year to Date		
	1958†	1957	1958†	1957	1956
All Causes	628.5	642.2	668.5	645.7	621.9
Tuberculosis (all forms)	5.1	6.9	6.9	6.8	7.3
Communicable diseases of childhood	.1	.1	.2	.2	.3
Acute poliomyelitis	.2	.2	.1	.1	.4
Malignant neoplasms	143.3	134.8	140.7	136.3	129.5
Digestive system	49.6	44.6	47.2	47.4	44.4
Respiratory system	18.5	16.7	19.8	18.8	17.4
Diabetes mellitus	14.2	16.4	15.6	15.0	15.2
Diseases of the cardiovascular-renal system	330.2	330.5	354.5	342.6	332.2
Vascular lesions, central nervous system	61.7	63.5	66.6	65.7	64.4
Diseases of heart	244.1	241.0	262.5	251.5	243.1
Chronic rheumatic heart disease	10.4	11.4	11.4	11.2	11.6
Arteriosclerotic and degenerative heart disease	194.2	191.6	208.0	196.8	189.1
Diseases of coronary arteries	114.3	109.1	119.1	112.0	108.8
Hypertension with heart disease	29.0	28.9	32.1	33.3	33.8
Other diseases of heart	10.5	9.2	10.9	10.1	8.5
Nephritis and nephrosis	7.3	8.9	7.4	8.0	7.7
Pneumonia and influenza	12.2	23.7	21.0	15.9	13.8
Complications of pregnancy, childbirth	.5	.4	.8	.8	.9
Suicide	7.0	6.5	6.2	5.8	5.7
Homicide	2.5	3.1	2.8	2.9	2.4
Accidents—total	32.4	35.1	34.2	35.2	35.7
Motor vehicle	15.3	16.3	14.7	15.1	15.5
All other causes	80.8	84.5	85.5	84.1	78.5

*These death rates relate to persons insured under Industrial premium-paying policies, persons with Ordinary Monthly Premium Policies for Less Than $1,000, and persons with Debit Book Ordinary policies for $2,000 or less.
†Provisional.

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MORTALITY FROM ALL CAUSES

INDUSTRIAL POLICYHOLDERS · METROPOLITAN LIFE INSURANCE COMPANY

	(DEC)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1957		6.8	6.7	7.2	6.5	6.3	6.3	6.3	6.1	6.0	6.4	7.3	7.0
1958		7.1	7.3	7.9	7.1	6.5	6.3	6.2	6.1	6.1	6.3		

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